Title:
Radio Broadcast - Scientific Optical Laboratories

A.L.P. BROADCAST BY THE PREMIER, HON. DON DUNSTAN, Q.C., M.P.
5-K.A., 6.55 P.M., FRIDAY, 8TH DECEMBER, 1967.

GOOD EVENING :

PREVIOUSLY I HAVE REFERRED TO THE FACT OF SOUTH AUSTRALIA FAST BECOMING THE TECHNOLOGICAL CENTRE OF INDUSTRY IN AUSTRALIA AS A RESULT OF THE HIGH STANDARD OF OUR SCIENTISTS, ENGINEERS AND TRADESMEN, AND ALSO OF THE ACTIVE INTEREST OF SOUTH AUSTRALIAN INDUSTRY IN PURSUING EXPORT MARKETS. I AM PLEASED TO ANNOUNCE TONIGHT FURTHER EVIDENCE OF THESE CLAIMS. THE SOUTH AUSTRALIAN COMPANY, SCIENTIFIC OPTICAL LABORATORIES OF AUSTRALIA PROPRIETARY LIMITED, WHICH LAST YEAR WON AN EXPORT AWARD FROM THE EXPORT DEVELOPMENT COUNCIL, HAS NOW ACHIEVED FURTHER SUCCESS. THE C.S.I.R.O., AT ITS DIVISION OF PHYSICS IN SYDNEY, HAS DEVELOPED A VERY HIGH PRECISION OPTICAL INSTRUMENT CALLED AN INTERFEROMETER. THIS INSTRUMENT IS AUTOMATICALLY CONTROLLED SO THAT THE PARALLELISM AND SPACING OF TWO VERY FLAT PLATES WHICH COMPRISE THE ESSENTIAL COMPONENT OF THE INSTRUMENT

DOES NOT DEPART FROM A PRE-SET VALUE BY MORE THAN APPROXIMATELY 1/10,000,000th OF AN INCH. THIS IS A REMARKABLE ACHIEVEMENT. THE INSTRUMENT HAS BEEN COVERED BY PATENT RIGHTS AND OUR ADELAIDE COMPANY, S.O.L.A. HAVE THE LICENCE TO MANUFACTURE IT. THE COMPANY HAS MADE THREE SUCH INTERFEROMETERS AND TWO OF THESE HAVE BEEN SOLD TO GERMANY, AT ONE TIME THE CENTRE OF THE WORLD FOR PRECISION OPTICS, AND THE THIRD HAS BEEN SOLD TO AMERICA.

THE COMPANY IS NOW ABOUT TO COMMENCE PRODUCTION OF A MORE COMPLEX MODEL OF THE INSTRUMENT. THIS CONSISTS OF THREE INTERFEROMETERS IN SERIES AND IS CALLED A RAMSAY FILTER, NAMED AFTER DR. RAMSAY WHO DID MUCH OF THE RESEARCH CONCERNED WITH THE ORIGINAL PRODUCTION OF THE INSTRUMENT.

DR. RAMSAY WAS INVITED RECENTLY TO THE UNITED STATES OF AMERICA TO DEMONSTRATE THE INTERFEROMETER PURCHASED BY THE BARTOL RESEARCH FOUNDATION OF PHILADELPHIA. HIS VISIT

ATTRACTED THE ATTENTION OF THE SCIENTISTS IN THE UNITED STATES OF AMERICA TO SUCH AN EXTENT THAT HE NOW FORECASTS AN 80% PROBABILITY OF ORDERS TO THE VALUE OF $200,000 WITHIN THE NEXT TWO YEARS.

ONE OF THE USES OF THE RAMSAY FILTER IS IN THE STUDY OF THE SUN IN ORDER TO UNDERSTAND MORE FULLY THE PHYSICS OF THE SUN AND THE POSSIBILITY OF FINDING, IN MORE DETAIL, THE EFFECT ON THE EARTH OF "STORMS" WHICH OCCUR ON THE SUN. PHOTOGRAPHS OF THE SUN CAN BE TAKEN IN THE RED LIGHT OF HYDROGEN WITH SUCH A FILTER WHICH ONLY TRANSMITS 1/40,000th OF THE VISIBLE WAVELENGTH. AT THE PRESENT TIME, THERE IS NO OTHER INSTRUMENT IN THE WORLD WHICH CAN ACHIEVE THIS FEAT WITH AN EXPOSURE TIME OF LESS THAN ONE SECOND.

THE ACHIEVEMENTS OF SCIENTIFIC OPTICAL LABORATORIES IN CONJUNCTION WITH THE C.S.I.R.O. ARE GREAT. WE HAVE THUS

BEEN ABLE TO DEMONSTRATE TO THE WORLD THAT SOUTH AUSTRALIAN INDUSTRY CAN PRODUCE EQUIPMENT OF THE HIGHEST QUALITY AND OF THE FINEST PRECISION.

I CONGRATULATE THE COMPANY ON ITS REMARKABLE SUCCESS AND ASSURE IT AND ALL OTHER MANUFACTURERS OF THE GOVERNMENT'S INTEREST AND SUPPORT IN THEIR EFFORTS TO PRODUCE IN SOUTH AUSTRALIA THE REQUIREMENTS OF THE MARKETS OF THE WORLD.

GOOD NIGHT.

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SCIENTIFIC OPTICAL LABORATORIES OF AUSTRALIA PTY. LTD.

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7th December, 1967.

The Hon. D.A. Dunstan, Q.C., LL.B., M.P.,
Premier of South Australia,
Police Headquarters Building,
Angas Street,
ADELAIDE. S.A.

Dear Mr. Premier,

As you undoubtedly know C.S.I.R.O. is charged with the responsibility of conducting research and, also aid to industry where justified and required.

At the Division of Physics in Sydney they have developed a very high precision optical instrument called an interferometer. This instrument is automatically controlled such that the parallelism and spacing of two very flat plates which comprise the essential component of the instrument does not depart from a preset valve by more than approximately 1/10,000,000 inches. This instrument is covered by patent rights and S.O.L.A., of Adelaide, are manufacturing it under licence. Three such interferometers have been made and sold already - two to Germany, the early home of precision optics, and one to America.

S.O.L.A. is now about to commence production of a more complex model of the instrument. This consists of three interferometers in series and is called a Ramsay filter. Recently Dr. Ramsay was invited to go to U.S.A. to demonstrate the interferometer which was purchased by the Bartol Research Foundation of Philadelphia. His visit excited the curiosity of the scientists in the U.S.A. to such an extent, that he forecasts an 80% probability of orders to the value of $200,000 within the next 2 years.

One of the uses of the Ramsay filter is in the study of the sun in order to understand more fully the physics of the sun and possibility of finding, in more detail the effect on the earth of "storms" which occur on the sun. A photograph of the sun taken in the red light of hydrogen with such a filter, which only transmits 1/50,000 of the visible wavelengths, is attached.

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The Premier of South Australia.

At the present time, there is no other instrument in the world which can achieve this feat with an exposure time of less than one second.

Dr. Ramsay, with the permission of C.S.I.R.O. will be visiting Adelaide periodically in order to assist S.O.L.A. with advice on the manufacture of these instruments until such times as S.O.L.A. have mastered the techniques of their construction.

Yours faithfully,
SCIENTIFIC OPTICAL LABORATORIES
OF AUSTRALIA PTY. LTD.

H. N. Roscrow
Managing Director.